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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,468	05/24/2001	Giuseppa Licata	Q64538	1250

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EXAMINER

TON, ANTHONY T

ART UNIT PAPER NUMBER

2661

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/863,468

Applicant(s)

LICATA ET AL.

Examiner

Anthony T Ton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**PHIRIN SAM****PRIMARY EXAMINER****Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/24/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.



DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

a) Term “the independent **claim 2**” in page 3 line 10 is improper since there is no an independent claim 2.

Examiner suggests changing this term to “the independent **claim 3**” to incorporated with the independent claim 3.

b) Term “the destination **node T**” in page 5 line 2 is improper since there is no such a node T in **Fig.1**.

Examiner suggests changing this term to “the destination **node H**” to incorporated with the destination node H as shown in **Fig.1**.

Appropriate correction is required.

Claim Objections

2. **Claims 1 and 3** are objected to because of the following informalities:

a) **In claim 1:** Term “**Swicth**” in line 3 is improper since it is misspelled.

Examiner suggests changing this term to “**Switch**”.

b) **In claim 3:** Term “**the primary node**” in line 7 is improper since there is no antecedent basis for such a primary node.

Examiner suggests changing this term to “**a primary node**”.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. **Claim 3** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) The claim recites the limitation “**said node**” in line 3. There is insufficient antecedent basis for this limitation in the claim. Does this limitation “**said node**” refer to “a network element” in line 1 or a “Dual Node” in line 2? It cannot be distinguished from each other.

b) The claim recites the limitation “**said secondary node**” in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1-3** are rejected under 35 U.S.C. 102(b) as being anticipated by *Kremer* (US Patent No. **5,406,549**).

a) **In Regarding to Claim 1:** *Kremer* disclosed a method for interconnecting a Multiplex Section Shared Protection ring network with a Subnetwork Connection Protection ring network in a Dual Node and Bridge & Switch architecture through a primary interconnection node and a

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secondary interconnection node connected by an optical-fiber span (*see Fig.1: Ring 100, Ring 101, the first shared node 130, the additional shared node 131, optical fiber paths 116 and 117*), said primary interconnection node comprising means for performing a Drop & Continue operation and a Service Selector for each circuit (*see Fig.1: 112, 132 and 120, and see Fig.2: selectors 207-209*), wherein the method comprises the step of:

closing said Subnetwork Connection Protection ring network through the Service Selector of the primary node of the Multiplex Section Shared Protection ring network (*see col.3 lines 23-52: in which, the Rings 100 (MS-SP ring) and 101 (SNCP ring) are closed together by the interconnection of ring nodes 112 and 120 in shared node 130 (the primary node), which are being interconnected by inter-ring grooming apparatus (hence, closing said Subnetwork Connection Protection ring network through the Service Selector of the primary node of the Multiplex Section Shared Protection ring network)*).

b) In Regarding to Claim 2: *Kremer* further disclosed said step of closing said Subnetwork Connection Protection ring network through the Service Selector of the primary node comprises the steps, carried out in the primary interconnection node, of:

receiving a signal entering the Multiplex Section Shared Protection ring network (*see Fig.1: R_A at the Ring Node 110*),

dropping it towards said Subnetwork Connection Protection ring network (*see col.4 lines 22-32*) and continuing it towards said secondary interconnection node by utilizing an optical fiber span connecting said primary and secondary nodes (*see Figs.1 and 2, and col.4 lines 33-37: West to East signal transmission path 116 from shared node 130 to shared node 131 via ring node 113*);

selecting one signal, by means of said Service Selector, between

a signal coming from said Subnetwork Connection Protection ring network and

directly entering the primary node (*see Fig.1: Ring 101, in which, a signal travels along the fiber path 128 from Ring node 121 to the primary node 130, and see Fig.2: selector 207 associated with the fiber path 116 or 128*), and

a signal coming from said Subnetwork Connection Protection ring network,

passed through the secondary node, and entering the primary node by

traveling down an optical-fiber span that connects the primary and

secondary nodes (*see Fig.1: Ring 101, in which, a signal travels along the fiber path 129 (optical-fiber span) from the secondary node 131 to the primary node 130, and see Fig.2: selector 209 associated with the fiber path 117 or 129*); and

sending said signal that has been selected by the Service Selector to the destination node of the Multiplex Section Shared Protection ring network (*see col.9 lines 12-25: wherein, the ring node 110 is a destination node of the Ring 100 (MS-SP ring)*).

c) **In Regarding to Claim 3:** *Kremer* disclosed a network element for interconnecting a Multiplex Section Shared Protection ring network and a Subnetwork Connection Protection ring network in a Dual Node and Bridge & Switch architecture (*see Fig.1*), said network element comprising a Service Selector for each circuit (*see Fig.1: 112, 132 and 120, and see Fig.2: selectors 207-209*), wherein said Service Selector selects one signal between:

a signal coming from said Subnetwork Connection Protection ring network and

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directly entering the primary node (*see Fig.1: Ring 101, in which, a signal travels along the fiber path 128 from Ring node 121 to the primary node 130, and see Fig.2: selector 207 associated with the fiber path 116 or 128*), and

a signal coming from said Subnetwork Connection Protection ring network, passed through said secondary node, and entering said primary node by traveling down an optical-fiber span that connects the primary and secondary nodes (*see Fig.1: Ring 101, in which, a signal travels along the fiber path 129 (optical-fiber span) from the secondary node 131 to the primary node 130, and see Fig.2: selector 209 associated with the fiber path 117 or 129*), and

sends said selected signal to the destination node of the Multiplex Section Shared Protection ring network (*see col.9 lines 12-25: wherein, the ring node 110 is a destination node of the Ring 100 (MS-SP ring)*).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over *Kremer* (US Patent No. 5,406,549) in view of *Cox, Jr. et al.* (US Patent No. 5,515,367) hereinafter referred to as *Cox*.

In Regarding to Claim 4: *Kremer* disclosed all aspects of this claim as set forth in a method of claim 2.

Kremer failed to teach a computer program comprising code adapted to perform all of said steps of the method of claim 2 when said program is run on a computer.

Cox explicitly disclosed such a computer program (*see col.4 lines 51-67*)

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such a computer-readable medium, as taught by *Cox* with *Kremer*, in order to control an interconnection in an optical communication network. The motivation for doing so would have been to automatically operate an interconnection two different nodes in different sub-networks, and provide a method and a system for efficiently routing point-to-point traffic through a synchronous optical ring network (*see Cox: col.4 lines 38-41*). Therefore, it would have been obvious to combine *Cox* with *Kremer* in the invention as specified in the claim.

9. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over *Kremer* (US Patent No. 5,406,549) in view of *de Boer et al.* (US Patent No. 6,658,013) hereinafter referred to as *Boer*.

In Regarding to Claim 5: *Kremer* disclosed all aspects of this claim as set forth in a method of claim 2.

Kremer failed to teach a computer-readable medium having a program recorded thereon, said computer-readable medium comprising code adapted to perform all of said steps of the method of claim 2 when said program is run on a computer.

Boer explicitly disclosed such a computer-readable medium (*see col.4 lines 43-51*)

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such a computer-readable medium, as taught by *Boer* with *Kremer*, in order to control an interconnection in an optical ring network. The motivation for doing so would have been to

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control a switch in a network element, and the switch being operable to controllably establish an inter-ring connection between first and second rings (*see Boer: col.4 lines 46-48*). Therefore, it would have been obvious to combine *Boer* with *Kremer* in the invention as specified in the claim.


Examiner Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Anthony T Ton** whose telephone number is **571-272-3076**. The examiner can normally be reached on M-F: 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Ken Vanderpuye** can be reached on **571-272-3078**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

by : 
Anthony T. Ton
Patent Examiner
December 07, 2004


PHIRIN SAM
PRIMARY EXAMINER